#### **Gartner Data & Analytics Summit**

18 - 21 March 2019 / Orlando, Florida

# Workshop: Scaling Self-Service Data and Analytics

Carlie Idoine @CarlieIdoine

© 2019 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. It consists of the opinions of Gartner's research organization, which should not be construed as statements of fact. While the information contained in this publication has been obtained from sources believed to be reliable, Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner research may address legal and financial issues, Gartner does not provide legal or investment advice and its research should not be construed or used as such. Your access and use of this publication are governed by Gartner's Usage Policy. Gartner prides itself on its reputation for independence and objectivity. Its research is produced independently by its research organization without input or influence from any third party. For further information, see "Guiding Principles on Independence and Objectivity."



### Strategic Planning Assumptions

- By 2020, the number of data and analytics experts in the business units will grow at three times the rate of experts in IT departments, which will force companies to rethink their organizational models and skill sets.
- By 2020, augmented analytics will be a dominant driver of new purchases of analytics and BI as well as data science and machine learning platforms, and of embedded analytics.
- By 2025, a scarcity of data scientists will no longer hinder the adoption of data science and machine learning in organizations.
- By 2020, organizations that offer users access to a curated catalog of internal and external data will derive twice as much business value from analytics investments as those that do not.



1. Scaling Self-Service for D&A Guidance Take the Four Pillars End to End

(15 Minutes)

2. Group Exercise
Recommend a Self-Service D&A Approach for Your Case Study

3. Report Back (30 Minutes)

**Share Your Decisions** 

4. Summary and Next Steps (10 Minutes)



<ol> <li>Scaling Self-Service for D&amp;A Guidance         Take the Four Pillars End to End     </li> </ol>	(15 Minutes)
2. Group Exercise Recommend a Self-Service D&A Approach for Your Case Study	(35 Minutes)
3. Report Back Share Your Decisions	(30 Minutes)
4. Summary and Next Steps	(10 Minutes)



# **Self-Service Data and Analytics Framework**

- 1. Why Business Extension vs. Business Transformation
- 2. What Measure, Classify, Decide
- 3. Who Centralized, Decentralized, Cross-Functional
- 4. How Prototype, Pilot, Production



# **Keep the Four Pillars in Mind**

#### **Business Outcomes**



#### **Information Management Foundation**

(Data):

- Data Governance
- EIM
- Information-Driven Enterprise



#### **Organization**

#### (People):

- Business and IT Team Roles
- Individual Skills
- Centralized or Decentralized



#### **Fact-Based Decision Making** (Process):

- Information as an Asset
- Instinct vs. Analytics
- Management and Governance



#### **Appropriate Technology Platform**

(Technology):

- Integrated Toolset and **Delivery Platform**
- Not Silos of Capability

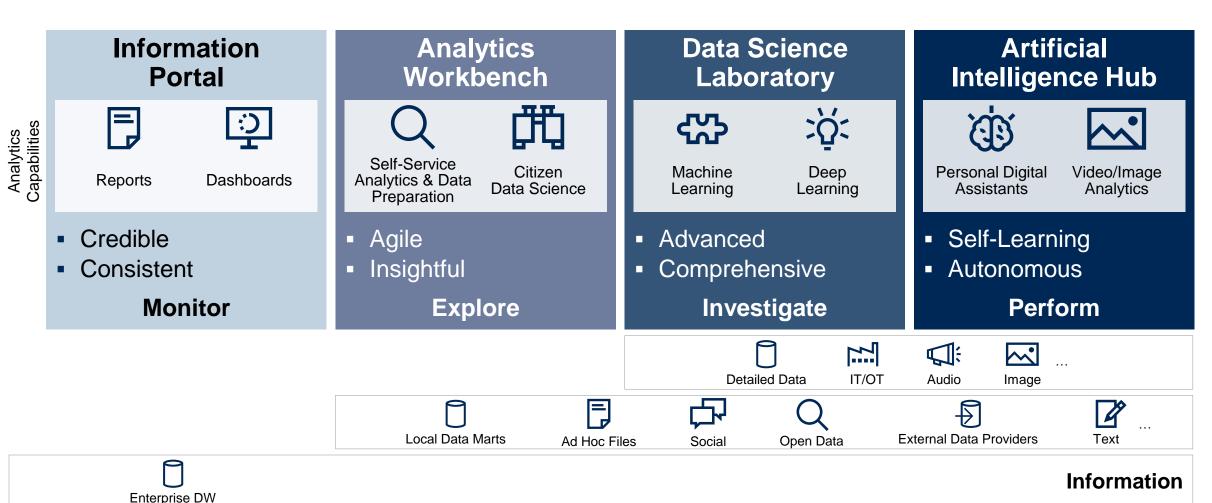
#### **The Information-Driven Enterprise**



# **Comprehensive Analytic Process — Where Self-Service Fits**

#### **On-Premises** Insight Action Data **Impact** Hybrid Acquire Organize Analyze Deliver Measure Cloud ✓ Provision and Catalog Internal ✓ Leverage Architectural Styles Leverage Existing Analytics ✓ Operationalize Your Analytics and External Sources ✓ Provide a Common Data ✓ Extend Functionality ✓ Monitor Artifacts ✓ Evolve Toward a Logical Data Access Layer ✓ Provide Reusable ✓ Measure the Value Warehouse ✓ Enable Self-Service Components ✓ Share Your Findings and ✓ Incorporate Data Integration and ✓ Establish a Multitiered BA **Approach Data Preparation** Management **Environment** ✓ Collaborate, Collaborate, ✓ Build Data Literacy ✓ Enable Flexible Provisioning ✓ Leverage Augmented Data Collaborate ✓ Leverage Augmented Discovery **Data Preparation** ✓ Leverage Augmented Data Science and Machine Learning

# Four-Tier Analytic Architecture Supports Functional Clusters





# **Empower and Enable With Augmented Analytics**

Augmented Data Preparation **Prepare Data**  Algorithms detect schemas, profile and catalog data, identify data lineage and metadata, and recommend enrichment **Faster** Improved Accuracy **Reduced Bias** Augmented Analytics Find Patterns in Data and Building Models Natural language query Algorithms find all relevant patterns in data Features are autoselected Models are autoselected Code is autogenerated Models management is augmented

**Emerging** Augmented **Analytics** Workflow

#### Share and Operationalize Findings

- Insights are narrated in natural language or visualizations to focus user on what is important and actionable
- Embedded in apps or conversational UI

Augmented Analytics in Analytics and BI Platforms Augmented Data Science and ML



#### Citizen Data Science

#### Roles that Filter into the CDS Continuum

#### The CDS Continuum **Business** Business Data Application Citizen Citizen Dev Ops ML Ops Data Scientist (Machine Analyst Intelligence Analyst/ Developer Developer Data (IT Analyst/ Scientist Data Application Learning Business Integrator/ Delivery) Model Intelligence Citizen Delivery) Developer Integrator/ Data Engineer



1. Scaling Self-Service for D&A Guidance Take the Four Pillars End to End

(15 Minutes)

2. Group Exercise
Recommend a Self-Service D&A Approach for Your Case Study

3. Report Back
Share Your Decisions (30 Minutes)

4. Summary and Next Steps (10 Minutes)



#### **The Group Exercise**

- 1. Form into groups of four or five people.
- 2. Review the case study and discuss the considerations relevant to your case study.
- 3. Devise a self-service approach including:
  - Using the self-service D&A framework.
    - Consider the end-to-end BA process.
- 4. Document your rationale and considerations.
- 5. Prepare to present your findings.



# Scaling Self-Service for the Data and Analytics **Recommended Approach**

	Why	What	Who	How	Other
Data					
Insight					
Action					
Impact					
Other					



#### **Ground Rules**

- Respect the speakers:
  - All ideas/comments are valid.
  - Please stay engaged.
- Speak up and request clarification.
- Make your point first then explain it.
- Learn something new!
  - Give everyone a chance to share.
- Have some fun!





1. Scaling Self-Service for D&A Guidance Take the Four Pillars End to End

(15 Minutes)

2. Group Exercise
Recommend a Self-Service D&A Approach for Your Case Study

(35 Minutes)

3. Report Back
Share Your Decisions

(30 Minutes)

4. Summary and Next Steps

(10 Minutes)



### **Report Back**

- Each team reports back to the whole group related to their use case:
  - Considerations, challenges, approach, priorities and rationale.
- Share your "aha" moments; how to apply this learning back to work.



1. Scaling Self-Service for D&A Guidance Take the Four Pillars End to End

(15 Minutes)

2. Group Exercise Recommend a Self-Service D&A Approach for Your Case Study

(35 Minutes)

3. Report Back
Share Your Decisions

(30 Minutes)

4. Summary and Next Steps

(10 Minutes)



#### **Recommended Gartner Research**

- ► How to Enable Self-Service Analytics and Business Intelligence:

  Lessons from Gartner Award Finalists

  Carlie Idoine and Cindi Howson (G00331768)
- Maximize the Value of Your Data Science Efforts by Empowering Citizen Data Scientists
  Carlie Idoine and Erick Brethenoux (G00343732)
- ► <u>Augmented Analytics Is the Future of Data and Analytics</u> Rita Sallam, Cindi Howson and Carlie Idoine (G00375087)
- Build a Comprehensive Ecosystem for Citizen Data Science To Drive Impactful Analytics
  Carlie Idoine (G00375359)



# **Summary and Next Steps**

- 1. Thank you for participating!
- 2. Complete your feedback forms.
- 3. Keep in touch.

carlie.idoine@gartner.com @Carlieldoine



